

Allergy and Anaphylaxis Management

1 hour training
Pre and post-test

Overview

- ❖ **Definitions**
 - ❖ **Standing Orders**
 - ❖ **Collaborative Practice Agreement**
- ❖ **Causes of Anaphylaxis**
- ❖ **Prevention**
- ❖ **Signs, Symptoms and Treatments**
- ❖ **Confidentiality and Rights**
- ❖ **Practice**
- ❖ **Storage and Reporting**

Allergy Management Pre-Test

Name: _____ School: _____ Date: _____

True / False Questions:

1. T/F Anaphylaxis is a life threatening emergency.
2. T/F Allergy symptoms can worsen suddenly.
3. T/F Only people with known allergies can develop anaphylaxis.
4. T/F Anaphylaxis may be caused by insect bites or stings, foods, medications or contact with latex or other substances.
5. T/F The recommended injection site for epinephrine autoinjector is the outer mid-thigh muscle.
6. T/F When a student having an anaphylactic reaction and epinephrine is given, it is not necessary to call 911.
7. T/F The epinephrine autoinjector must be held firmly in the thigh muscle for at least 10 seconds after injection.
8. T/F Students with known life-threatening allergies will have an Individualized Allergy Emergency Care Plan for staff to follow.

Definitions

- ❖ **Allergy** - an immune response to a foreign antigen resulting in inflammation and organ dysfunction.
- ❖ **Allergic Reaction** - a reaction of the immune system to a specific protein as a problem and initiates a response resulting in the release of chemical mediators such as histamine.
- ❖ **Anaphylaxis** - a life-threatening, often rapidly progressing type of allergic reaction. Anaphylactic reactions usually begin within minutes of exposure to allergen.

Standing Orders

Definition: “..are intended to cover those individuals who are not yet identified as known reactors and, for that reason, do not have their own emergency medication and individualized medical order in place.” *Legal Issues in School Health Services*

Schwab and Gelfman, 2005 p. 211

School Health Advisor Standing Order (Sample)

In the event that an individual presents with a sudden onset of any of the following:

- o Apprehension, sweating, weakness
- o Feeling of fullness in throat
- o Respiratory difficulty
- o Change in quality of voice
- o Tingling sensation around mouth or face, nasal congestion, itching, wheezing
- o Low blood pressure with weak rapid pulse or unobtainable pulse
- o Loss of consciousness, shock, coma
- o Hives with respiratory symptoms

(Source: The School Health Alert Protocol for Anaphylaxis)

If indicated, the first available school staff member must administer epinephrine autoinjector- .3mg (over 66 pounds) or epinephrine autoinjector -.15mg (under 66 pounds) and call the Rescue Department (911). Monitor the patient's vital signs (school nurse if available) and keep warm until rescue arrives. Be sure to have student data available for the rescue team.

For milder local allergic reactions such as hives without respiratory symptoms, administer Benadryl 25 mg by mouth. Proceed with Epi-pen if above anaphylactic symptoms present.

Date

School Health Advisor

Collaborative Practice Agreement

❖ 6305.1 Definitions.

A. "Collaborative practice agreement" means a written and signed agreement between a physician licensed to practice in the state of Maine or a school health advisor under Sec. 6402-A and a school nurse under Sec. 6403-A that provides for the prescription of epinephrine autoinjectors by the physician or school health advisor and administration of the epinephrine autoinjectors by a school nurse or designated school personnel to students during school or a school-sponsored activity under emergency circumstances involving anaphylaxis.

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

Collaborative Practice Agreement

- ❖ B. “Designated School Personnel” means those employees, agents or volunteers of a school administrative unit or an approved private school designated by a collaborative practice agreement between a physician licensed in this State or a school health advisor under section 6402-A and a school nurse under section 6403-A who have completed the training required by rule to provide or administer an epinephrine autoinjector to a student.
- ❖ C. “Epinephrine autoinjector” means a device that automatically injects a premeasured dose of epinephrine.
- ❖ D. “School” means a public or approved private school.

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

Collaborative Practice Agreement

❖ Must include:

- ❖ Name and physical address of the school
- ❖ Identification and signatures of the physician or school health advisor under section 6402-A and school nurse under section 6403-A
- ❖ Dates the agreement is signed by each party
- ❖ Beginning and end dates of the period of time within which the agreement is in effect
- ❖ Any other information considered appropriate by the physician or school health advisory under section 6402-A and school nurse under section 6403-A

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

What if you do not have a collaborative practice agreement in place?

- ❖ School administrative units or approved private schools may authorize the school nurse and designated personnel to administer epinephrine autoinjectors to a student with KNOWN allergies and prescribed epinephrine autoinjectors with prescription on file with the school nurse

Citation: <http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>

Causes of Anaphylaxis

Anaphylaxis can be triggered by:

- ❖ Foods (peanuts, tree nuts, eggs, wheat, milk, fish, shellfish, soy)
- ❖ Insect stings (bee, wasp)
- ❖ Medications
- ❖ Latex from natural rubber (gloves, balloons, bananas, tomatoes, carrots, sports equipment, etc.)
- ❖ Arts and craft materials may contain trace amounts of food allergens



3/14/2016



Anaphylaxis



8 Major Food Allergens

- ❖ Milk
- ❖ Eggs
- ❖ Peanuts
- ❖ Tree nuts
- ❖ Fin Fish (bass, cod, flounder, etc.)
- ❖ Shellfish (crab, lobster, shrimp, etc.)
- ❖ Soy
- ❖ Wheat



Facts About Allergens

- ❖ It must be understood that in a school setting it is not possible to have a completely allergen free environment
- ❖ Staff, parents, and students should not have a false sense of security that an allergen has been completely eliminated from school
- ❖ Each school will develop a protocol to prevent exposure to allergens

Prevention

Steps to prevention:

- ❖ Avoid exposure to known allergen
- ❖ Allergy and anaphylaxis training must be provided to school personnel

School may stock life saving medication as allowed by Maine State Law

<http://legislature.maine.gov/ros/LawsOfMaine/#Statutes/20-A/title20-Asec6305>



Anaphylaxis

Prevention

- ❖ Encourage and support students to advocate for themselves
- ❖ Work with the school nurse to identify who is at risk
- ❖ Educate students, colleagues, and parents about the risk of food anaphylaxis
- ❖ Epinephrine must accompany students with known allergies on off-campus events



Anaphylaxis

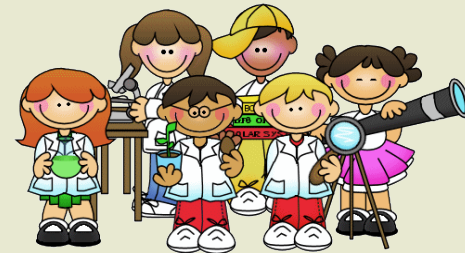
Prevention: Cafeteria

- ❖ A separate cleaning solution and disposable cloth will be used to clean allergy safe tables/surfaces
- ❖ Students may access an allergy safe table in the cafeteria
- ❖ Sharing, touching or trading food should be prohibited
- ❖ Students should be instructed to use proper hand washing techniques using soap and water
- ❖ Carefully read all food labels, even if they are known foods
- ❖ Cross contamination: Food handlers should use separate utensils for food preparation and serving



Prevention: Classroom Food

- ❖ Parents should be notified that there are one or more students with life-threatening food allergies in the class/school and identify the restrictions in bringing certain foods to the school including lunches, parties and snacks
- ❖ Students should be instructed to use proper hand washing techniques using soap and water
- ❖ Carefully read all food labels
- ❖ Sharing, touching or trading food should be prohibited
- ❖ Cross contamination - prep areas, serving utensils, and containers



Prevention: Classroom Insects

Practical strategies to avoid Insect exposure

- ❖ If there is a bee/wasp in the classroom, have student with stinging insect allergy leave the room until the insect is removed
- ❖ Notify custodial staff and office immediately if you notice a nest or presence of bees/wasps
- ❖ The environment should be checked on a regularly scheduled basis to look for evidence of ground wasps and dealt with by facilities staff
- ❖ The bus should be checked for evidence of bee/wasp presence before an allergic student gains access



Prevention: Field Trip

- ❖ Clearly label the location of the epinephrine in the emergency pack carried by designated staff
- ❖ Designate a trained staff person to be responsible for the administration of epinephrine and implement the emergency response plan if indicated
- ❖ Provide school staff and bus drivers with the information about the student's allergy management plan and any necessary precautions
- ❖ The bus drivers must have a method of communication for the emergency calls
- ❖ Allergy Emergency Care Plan and emergency medication should be packaged for all students with known allergy
- ❖ Hand wipes should be available for hygiene use before and after eating. Note: wipes are not effective in removing some allergens



Allergy Emergency Care Plan

(for known allergies)

- ❖ Action plans are specific to the individual student
- ❖ Plan should be shared with school staff responsible for care
- ❖ Information is **CONFIDENTIAL**
- ❖ Everyone should know where medication is and **HOW TO REACT**

FARE, 2014

<http://www.maine.gov/education/sh/contents/foodallergyactionplan2012.pdf>

Anaphylaxis

Life-Threatening Reaction (Anaphylaxis)

- ❑ Usually comes on suddenly
- ❑ Difficulty breathing or feeling faint
- ❑ Often multiple body systems involved
- ❑ Treatment = **Epinephrine NOW and call 911**

NASN, 2015, Get Trained.

Signs and Symptoms

Anaphylaxis is ANY systemic reaction to an allergen

- HEART:** Pale, blue, faint, weak pulse, dizzy
- MOUTH:** Significant swelling of the tongue and/or lips
- LUNG:** Short of breath, wheezing, repetitive cough
- SKIN:** Many hives over body, widespread redness

Signs and Symptoms

Anaphylaxis is ANY systemic reaction to an allergen

- GUT:** Repetitive vomiting, severe diarrhea
- THROAT:** Tight, hoarse, trouble breathing/swallowing
- OTHER:** Feeling something bad is about to happen, anxiety, confusion

May be a COMBINATION of symptoms from different body areas

Local reactions occur at insult site only



Signs and Symptoms

Hives



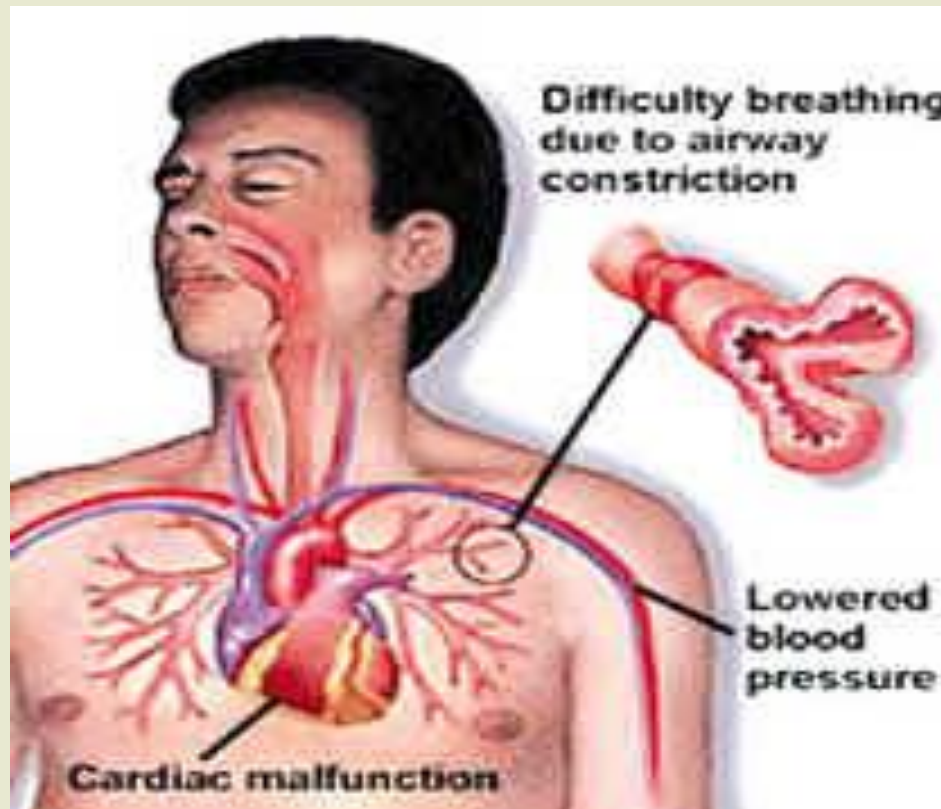
Signs and Symptoms

- ❖ Tight throat, swollen lips, hives, severe stomach pain



Signs and Symptoms

Physiology



Treatment

- ❖ INJECT EPINEPHRINE AUTO-INJECTOR **IMMEDIATELY (Demonstration)**
- ❖ Epinephrine 0.15-0.3 mg auto-injector- up to 2 shots 5 minutes apart.
- ❖ Record the expiration date of the epinephrine and send the used epinephrine pen with the student to the ER

CALL 911

Training Video

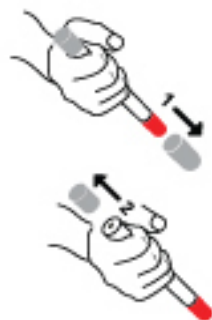
Be Safe from Anaphylaxis (Mayo Clinic, YouTube)

Every year up to two thousand people in the United States and Canada die from anaphylaxis -- a serious allergic reaction. The most common causes are allergies to peanuts, insect bites and seafood.



Autoinjector Practice

Step A



- Pull off **GRAY** end cap with the [1]; you will now see a **RED** tip. Never put thumb, finger, or hand over the **RED** tip.
- Pull off **GRAY** end cap with [2].

Step B



- Put the **RED** tip against the middle of the outer side of your thigh (upper leg) as shown. It can go through clothes.
- Press down hard until the needle enters your thigh (upper leg) through your skin. Hold it in place while slowly counting to 10.
- Remove the epinephrine auto-injector from your thigh.
- Check the **RED** tip. If the needle is exposed, you received the dose. If the needle is not visible, repeat Step B.

Step C

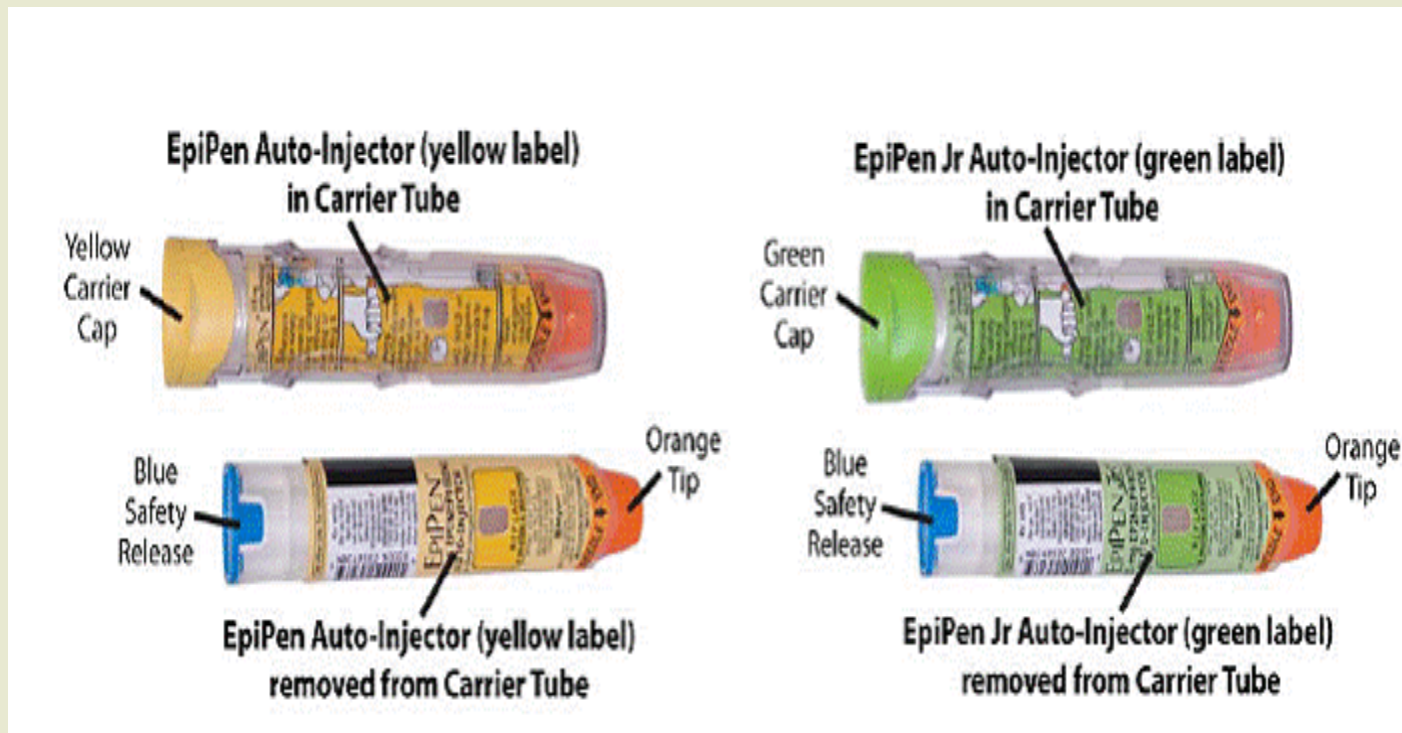


Get emergency medical help right away: Call 911.

[How to use epinephrine auto-injector](#)
[How to use an Epi-pen](#)

Autoinjector Practice

Pictures of Adult (yellow) and Child (green) injectors



NOTE: Safety caps are **BLUE**

Epinephrine Storage

- ❖ Epinephrine autoinjectors will be stored in a secure safe location
- ❖ Autoinjectors should be readily available when needed
- ❖ Storage of autoinjectors should ideally be stored out of direct sunlight, at room temperature between **68°F-77°F**
- ❖ **Do not leave in cars, on buses, in snow bank, on the beach, or in direct sunlight**

Incident Reporting

- ❖ Individual school incident report forms can be used to report epinephrine administration to the Maine Department of Education.
- ❖ Debrief with staff after an administration of epinephrine

<http://www.maine.gov/education/sh/contents/index.html>

Allergy Management Post Test

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True / False Questions:

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Anaphylaxis Training

Questions



Anaphylaxis

Contact information:

School nurse name:

Phone:

Email: